```
=> s H1(1)H3
         25581 H1
         19234 H3
          2855 H1(L)H3
=> s l1 and allerg?
         69227 ALLERG?
             93 L1 AND ALLERG?
=> s 12 and (loratadine or desloratadine or dsl)
           923 LORATADINE
           304 DESLORATADINE
           368 DSL
L3
             17 L2 AND (LORATADINE OR DESLORATADINE OR DSL)
=> d bib hit 1-17
     ANSWER 1 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2006:740597 CAPLUS
DN
     145:188876
     Preparation of imidazole and benzimidazole derivatives as histamine H3
TI
     antagonists
     Aslanian, Robert G.; Tom, Wing C.; Zhu, Xiaohong
IN
     Schering Corporation, USA
PA
SO
     PCT Int. Appl., 41 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                           KIND
                                   DATE
                                               APPLICATION NO.
     ______
                           _ _ _ _
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                                                _______
                                                                         _____
                                              WO 2006-US1832
                                   20060727
ΡI
     WO 2006078775
                           A1
                                                                         20060119
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
              MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
              SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
              VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
              CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
              GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM
                                               US 2006-334932
                                                                         20060119
     US 2006166960
                            A1
                                   20060727
PRAI US 2005-646094P
                            P
                                   20050121
     MARPAT 145:188876
               THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
     The title compds. I [n = 2-5; R = is R3-aryl, R3-heteroaryl,
AB
     R3-cycloalkyl, R3-heterocycloalkyl, alkyl, haloalkyl, -OR4, -SR4 or
     -S(0)1-2R5; R1 = H and R2 = H or (un)substituted Ph or pyridyl, or R1 = H
     or (un) substituted Ph or pyridyl and R2 = H, and X = O or S; or R1 and R2,
     together with the carbon atoms to which they are attached, form
     (un) substituted fused benzo or pyrido ring, and X = O, S or NR7; Z =
     (un) substituted pyrrolidino, piperidino, piperazino, etc.; R3 = H, alkyl,
     halo, etc.; R4 = alkyl, arylalkyl or cycloalkyl; R5 = alkyl, R3-aryl,
     R3-arylalkyl, etc.; R7 = H, alkyl, etc.], useful as histamine H3 antagonists, were prepared For example, a multistep synthesis of II, starting from 4-aminophenol and 2,5-difluoronitrobenzene, was given (no
     characterization data for intermediates). II showed Ki of 1 nM in H3
     receptor binding assay. Also disclosed are pharmaceutical compns.
     comprising the compds. I, methods of treating allergy,
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allergy-induced airway responses, congestion, obesity and metabolic syndrome using the compds. I , as well as combinations with other drugs useful for treating those diseases. ST imidazole prepn histamine H3 antagonist combination chemotherapy allergy inhibitor; benzimidazole prepn histamine H3 antagonist combination chemotherapy allergy inhibitor IT Antihistamines (H1; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Histamine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (H1; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) Antihistamines IT (H3; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) Histamine receptors ΙT RL: BSU (Biological study, unclassified); BIOL (Biological study) (H3; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Mental and behavioral disorders (attention deficit hyperactivity disorder; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Drug delivery systems (carriers; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy -induced airway responses, congestion, obesity and metabolic syndrome) IT Nose, disease (congestion; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy -induced airway responses, congestion, obesity and metabolic syndrome) Gastrointestinal motility IT (disorder, dysmotility; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Central nervous system, disease (hyperactivity; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Respiratory system, disease (hyperresponsiveness, allergy-induced airway response; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) IT Central nervous system, disease (hypoactivity; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome) Metabolic disorders IT (metabolic syndrome X; preparation of imidazole and benzimidazole derivs. as histamine H3 antagonists for treating allergy, allergy-induced airway responses, congestion, obesity and metabolic syndrome)

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IT
    Headache
        (migraine; preparation of imidazole and benzimidazole derivs. as histamine
       H3 antagonists for treating allergy, allergy
        -induced airway responses, congestion, obesity and metabolic syndrome)
IT
    Allergy
      Allergy inhibitors
    Alzheimer's disease
    Anti-Alzheimer's agents
    Antihypotensives
    Antimigraine agents
    Antiobesity agents
    Antipsychotics
    Cardiovascular agents
    Cardiovascular system, disease
    Central nervous system, disease
    Central nervous system agents
    Combination chemotherapy
    Digestive tract, disease
    Gastrointestinal agents
    Human
    Hypotension
    Nervous system stimulants
    Obesity
     Schizophrenia
     Sleep disorders
        (preparation of imidazole and benzimidazole derivs. as histamine H3
        antagonists for treating allergy, allergy-induced
        airway responses, congestion, obesity and metabolic syndrome)
IT
        (secretion, hyperacidity; preparation of imidazole and benzimidazole derivs.
        as histamine H3 antagonists for treating allergy,
        allergy-induced airway responses, congestion, obesity and
       metabolic syndrome)
IT
    Gastric acid
        (secretion, hypoacidity; preparation of imidazole and benzimidazole derivs.
        as histamine H3 antagonists for treating allergy,
        allergy-induced airway responses, congestion, obesity and
       metabolic syndrome)
IT
    Gastric acid
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (secretion, inhibitors; preparation of imidazole and benzimidazole derivs.
        as histamine H3 antagonists for treating allergy,
        allergy-induced airway responses, congestion, obesity and
        metabolic syndrome)
TΤ
     100643-71-8
    RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use);
    BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
        (preparation of imidazole and benzimidazole derivs. as histamine H3
        antagonists for treating allergy, allergy-induced
        airway responses, congestion, obesity and metabolic syndrome)
                                                                  902780-40-9P
IT
     902780-36-3P
                                                   902780-39-6P
                    902780-37-4P
                                   902780-38-5P
                                                                  902780-45-4P
     902780-41-0P
                    902780-42-1P
                                   902780-43-2P
                                                   902780-44-3P
     902780-46-5P
                                   902780-48-7P
                                                   902780-49-8P
                                                                  902780-50-1P
                    902780-47-6P
     902780-51-2P
                                                   902780-54-5P
                                                                  902780-55-6P
                    902780-52-3P
                                   902780-53-4P
     902780-56-7P
                                   902780-58-9P
                                                   902780-59-0P
                                                                  902780-60-3P
                    902780-57-8P
     902780-61-4P
                                                   902780-64-7P
                                                                  902780-65-8P
                    902780-62-5P
                                   902780-63-6P
     902780-66-9P
                    902780-67-0P
                                   902780-68-1P
                                                   902780-69-2P
                                                                  902780-70-5P
                                                   902780-74-9P
                                                                  902780-75-0P
     902780-71-6P
                    902780-72-7P
                                   902780-73-8P
                                                                  902780-80-7P
     902780-76-1P
                    902780-77-2P
                                   902780-78-3P
                                                   902780-79-4P
     902780-81-8P
                    902780-82-9P
                                   902780-83-0P
                                                   902780-84-1P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
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(preparation of imidazole and benzimidazole derivs. as histamine H3
       antagonists for treating allergy, allergy-induced
       airway responses, congestion, obesity and metabolic syndrome)
    58-73-1, Diphenhydramine 60-87-7, Promethazine 68-88-2, Hydroxyzine
IT
    82-92-8, Cyclizine 84-96-8, Trimeprazine
                                               86-22-6 91-81-6,
                                         129-03-3, Cyproheptadine
                    91-84-9, Pyrilamine
    Tripelennamine
                                 469-21-6, Doxylamine
     132-22-9, Chloropheniramine
                                                       486-12-4.
                   486-16-8, Carbinoxamine 569-65-3, Meclizine
                                                                  3964-81-6,
    Triprolidine
    Azatadine
               5636-83-9, Dimethindene
                                        15686-51-8, Clemastine
                                                                  24219-97-4,
                                          34580-13-7, Ketotifen
    Mianserin
                29216-28-2, Mequitazine
                                                                  39577-19-0,
               50679-08-8, Terfenadine 58581-89-8, Azelastine
    Picumast
                                                                  68844-77-9,
                                            79516-68-0, Levocabastine
                 75970-99-9, Norastemizole
    Astemizole
    79794-75-5, Loratadine
                            80012-43-7, Epinastine 83799-24-0,
                   83881-51-0, Cetirizine
                                          86181-42-2, Temelastine
    Fexofenadine
    87848-99-5, Acrivastine 90729-42-3, Carebastine 90729-43-4, Ebastine
     108612-45-9, Mizolastine
                             110588-56-2, Noberastine
                                                         150756-35-7,
    Efletirizine
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (preparation of imidazole and benzimidazole derivs. as histamine H3
       antagonists for treating allergy, allergy-induced
       airway responses, congestion, obesity and metabolic syndrome)
     91-21-4, 1,2,3,4-Tetrahydroisoquinoline
ΙT
                                             92-54-6, 1-Phenylpiperazine
                            100-02-7, 4-Nitrophenol, reactions
     98-98-6, Picolinic acid
                         109-70-6, 1-Bromo-3-chloropropane
     1-Methylpiperazine
                                                             110-89-4,
    Piperidine, reactions
                            110-91-8, Morpholine, reactions
                                                              111-49-9,
                                123-30-8, 4-Aminophenol 123-75-1,
    Homopiperidine
                     119-53-9
                            123-90-0, Thiomorpholine
                                                                 177-11-7,
     Pyrrolidine, reactions
                                                        141-91-3
     1,4-Dioxa-8-azaspiro[4.5]decane 364-74-9, 2,5-Difluoronitrobenzene
               504-78-9, Thiazolidine 2293-07-4
                                                    2759-28-6,
     496-12-8
     4-Benzylpiperazine
                        2971-79-1, Methyl piperidine-4-carboxylate
     3367-95-1 4138-26-5, 3-Piperidinecarboxamide 4318-37-0
                                                               4410-12-2
     4897-50-1, 4-Piperidinopiperidine 5004-07-9, 4-Pyrrolidinopiperidine
     5382-16-1, 4-Hydroxypiperidine 5472-49-1, 1-(3-Chloropropyl)piperidine
    hydrochloride
                    13889-98-0, 1-Acetylpiperazine 17766-28-8,
     1-Cyclohexylpiperazine
                             22817-26-1
                                        31166-44-6
                                                       31252-42-3,
     4-Benzylpiperidine
                        34803-66-2, 1-(2-Pyridyl)piperazine
                                                              35794-11-7,
     3,5-Dimethylpiperidine 39546-32-2, 4-Piperidinecarboxamide 39713-72-9
                             40499-83-0, 3-Hydroxypyrrolidine
                                                                 57260-71-6,
    40004-08-8 40172-95-0
     tert-Butyl piperazine-1-carboxylate 68377-27-5 79286-74-1
                                902780-86-3
                                             902780-87-4
                                                            902780-88-5
     132958-72-6
                  902780-85-2
     902780-89-6
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of imidazole and benzimidazole derivs. as histamine H3
       antagonists for treating allergy, allergy-induced
       airway responses, congestion, obesity and metabolic syndrome)
IT
    79096-54-1P
                  79713-63-6P
                                92374-75-9P
                                              251552-34-8P
                                                             902780-90-9P
     902780-91-0P
                   902780-92-1P
                                  902780-93-2P
                                                 902780-94-3P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of imidazole and benzimidazole derivs. as histamine H3
       antagonists for treating allergy, allergy-induced
       airway responses, congestion, obesity and metabolic syndrome)
    ANSWER 2 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
     2006:684424 CAPLUS
AN
DN
     145:224201
     Stimulating effects of H1-antagonists
ΤI
ΑU
     Theunissen, Eef L.; Vermeeren, Annemiek; Vuurman, Eric F. P. M.;
     Ramaekers, Johannes G.
     Experimental Psychopharmacology Unit, Brain and Behavior Institute,
CS
     Faculty of Psychology, Maastricht University, Neth.
    Current Pharmaceutical Design (2006), 12(20), 2501-2509
SO
     CODEN: CPDEFP; ISSN: 1381-6128
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Bentham Science Publishers Ltd.
PB
     Journal; General Review
DT
LA
     English
              THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 69
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     A review. Whereas antihistamines are generally known for their sedative
AB
     side effects, this review shows that several studies also found mild
     stimulating effects on performance for the H1-antagonists
     terfenadine, ebastine, fexofenadine and desloratadine. These
     stimulating effects were mostly demonstrated in tasks involving high
     levels of attention, e.g. divided attention tasks, vigilance tasks and
     driving tasks. The stimulating effects of these antihistamines were often
     dependent of the given dose; however the relation was not always linear.
     The mechanism responsible for the stimulating effects of these four
     antihistamines is still unclear, though it is hypothesized that it
     involves other neurotransmitters like dopamine and GABA, or that it acts
     through the H3 histamine receptor. Further research is needed
     to clarify the ambiguous role of histamine in processes of arousal. In
     addition, it would be useful to determine whether terfenadine, ebastine,
     fexofenadine and desloratadine can return allergic
     patient's performance back to their preclin. level.
IT
     Histamine receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (H3; stimulating effects of H1-antagonists)
                              83799-24-0, Fexofenadine
                                                           90729-43-4, Ebastine
IT
     50679-08-8, Terfenadine
     100643-71-8, Desloratadine
     RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (stimulating effects of H1-antagonists)
     ANSWER 3 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
AN
     2004:675663 CAPLUS
     141:185095
DN
     Use of combinations of H1 and H3 histamine receptor
TΤ
     antagonists for the preparation of a medicament for the treatment of
     allergic skin and allergic ocular conditions
     Hey, John A.; Kreutner, William; McLeod, Robbie L.
IN
PA
     Schering Corporation, USA
     PCT Int. Appl., 68 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                                                                    DATE
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                __:_-
                                            -----
                         _ _ _ _
                                20040819
                                          WO 2004-US2370
                                                                    20040129
     WO 2004069338
                          A1
PΙ
         W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG,
             BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,
             CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES,
             ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN,
             IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC,
             LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX,
             MZ, MZ, NA, NI
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
             MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
             GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                            US 2004-767164
     US 2004198743
                          A1
                                20041007
                                                                    20040129
PRAI US 2003-443948P
                          P
                                20030131
     Use of combinations of H1 and H3 histamine receptor
     antagonists for the preparation of a medicament for the treatment of
     allergic skin and allergic ocular conditions
```

The invention provides methods for treating allergic skin and

AB

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ocular conditions and disorders by combined administration of an histamine
    H1 receptor antagonist and a histamine H3 receptor
     antagonist.
ST
    histamine H1 H3 antagonist combination eye skin
    allergy treatment
TТ
    Antihistamines
        (H1; combinations of H1 and H3 histamine
       receptor antagonists for treatment of allergic skin and
       allergic ocular conditions)
TΤ
    Antihistamines
        (H3; combinations of H1 and H3 histamine
       receptor antagonists for treatment of allergic skin and
       allergic ocular conditions)
IT
    Allergy
    Eye, disease
     Inflammation
        (allergic conjunctivitis; combinations of H1 and
       H3 histamine receptor antagonists for treatment of
       allergic skin and allergic ocular conditions)
IT
    Drug delivery systems
        (capsules; combinations of H1 and H3 histamine
       receptor antagonists for treatment of allergic skin and
       allergic ocular conditions)
TT
    Allergy
      Allergy inhibitors
     Antibiotics
    Combination chemotherapy
    Drug delivery systems
    Drug interactions
    Drug screening
    Eye, disease
    Hay fever
    Human
    Skin, disease
    Urticaria
        (combinations of H1 and H3 histamine receptor
       antagonists for treatment of allergic skin and
       allergic ocular conditions)
IT
    Steroids, biological studies
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (combinations of H1 and H3 histamine receptor
       antagonists for treatment of allergic skin and
       allergic ocular conditions)
IT
    Eye, disease
     Inflammation
        (conjunctivitis; combinations of H1 and H3
       histamine receptor antagonists for treatment of allergic skin
       and allergic ocular conditions)
    Eye, disease
IT
     Inflammation
        (keratoconjunctivitis; combinations of H1 and H3
       histamine receptor antagonists for treatment of allergic skin
       and allergic ocular conditions)
IT
    Anti-inflammatory agents
        (nonsteroidal; combinations of H1 and H3 histamine
       receptor antagonists for treatment of allergic skin and
       allergic ocular conditions)
IT
    Drug delivery systems
        (parenterals; combinations of H1 and H3 histamine
       receptor antagonists for treatment of allergic skin and
       allergic ocular conditions)
IT
    Blood vessel
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(permeability, microvascular permeability; combinations of H1

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and H3 histamine receptor antagonists for treatment of
        allergic skin and allergic ocular conditions)
IT
    Biological transport
        (permeation, vascular, microvascular permeability; combinations of
       H1 and H3 histamine receptor antagonists for
       treatment of allergic skin and allergic ocular
       conditions)
ΙT
    Drug delivery systems
        (tablets; combinations of H1 and H3 histamine
        receptor antagonists for treatment of allergic skin and
        allergic ocular conditions)
IT
    Drug delivery systems
        (topical; combinations of H1 and H3 histamine
        receptor antagonists for treatment of allergic skin and
        allergic ocular conditions)
                               59-33-6, Pyrilamine
                                                      60-87-7, Promethazine
IT
     58-73-1, Diphenhydramine
     68-88-2, Hydroxyzine
                                               84-96-8, Trimeprazine
                           82-92-8, Cyclizine
     86-22-6, Brompheniramine
                               91-81-6, Tripelennamine
                                                          113-92-8,
                                129-03-3, Cyproheptadine
                                                           486-12-4,
     Chlorpheniramine maleate
     Triprolidine 486-16-8, Carbinoxamine
                                            523-87-5, Dimenhydrinate
                           569-65-3, Meclizine
                                                  3964-81-6, Azatadine
     562-10-7, Doxylamine
     5636-83-9, Dimethindene 5786-21-0, Clozapine
                                                      15686-51-8, Clemastine
     24219-97-4, Mianserin 24934-49-4
                                          29216-28-2, Mequitazine
                                                                    34580-13-7,
                34970-69-9, Burimamide
                                          34973-91-6, Impentamine
                                                                    39577-19-0,
     Ketotifen
              50679-08-8, Terfenadine
                                          55273-05-7, Impromidine
     Picumast
                                                                    58581-89-8,
     Azelastine 68844-77-9, Astemizole 75970-99-9, Norastemizole
                 79516-68-0, Levocabastine 79794-75-5, Loratadin
Epinastine 83184-43-4, Mifentidine 83799-24-0,
                                              79794-75-5, Loratadine
     79313-75-0
     80012-43-7, Epinastine
                   83881-51-0, Cetirizine 86181-42-2, Temelastine
     Fexofenadine
     87848-99-5, Acrivastine
                              90729-42-3 90729-43-4, Ebastine 99616-14-5,
     S-Sopromidine 100643-71-8, Desloratadine
                                                  106243-16-7,
     Thioperamide 108612-45-9, Mizolastine 110588-56-2, Noberastine
     145231-35-2, Clobenpropit dihydrobromide
                                              145231-45-4
                                                              148440-81-7,
     Thioperamide maleate 150756-35-7, Efletirizine 184025-18-1, Ciproxifan
                                203184-71-8
                                                             214283-29-1
     203180-53-4
                  203184-70-7
                                               203184-72-9
     224168-30-3
                  224168-31-4
                               224168-46-1
                                               224585-45-9
                                                             224825-10-9
                               433976-18-2
     230968-41-9
                  405551-48-6
                                               459783-23-4
                                                             459783-24-5
                  459783-26-7 459783-27-8
     459783-25-6
                                               459783-28-9
                                                             459783-29-0
                  459783-31-4 459783-32-5
                                               618892-76-5
     459783-30-3
                                                             732280-39-6
                                               732280-54-5
                                                             732280-56-7
     732280-43-2
                  732280-45-4
                                 732280-50-1
                  732280-65-8
                                 737757-49-2
     732280-58-9
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (combinations of H1 and H3 histamine receptor
        antagonists for treatment of allergic skin and
        allergic ocular conditions)
L3
     ANSWER 4 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
AN
     2004:648353 CAPLUS
     141:167797
DN
     Combination of H1, H3 and H4 receptor antagonists for
ΤI
     treatment of allergic and non-allergic pulmonary
     inflammation, congestion and allergic rhinitis
     Anthes, John C.; West, Robert E.; Hey, John A.; Aslanian, Robert G.
IN
     Schering Corporation, USA
PA
so
     PCT Int. Appl., 72 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                            APPLICATION NO.
                                            ______
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                         A2
                                20040812
                                            WO 2004-US3565
                                                                   20040126
PΙ
     WO 2004066960
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WO 2004066960

**A**3

20041021

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AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG,
            BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,
             CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES,
             ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN,
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            MZ, MZ, NA, NI
    US 2005090527
                          Α1
                                20050428
                                            US 2004-764780
                                                                    20040126
PRAI US 2003-443207P
                                20030128
                          P
    Combination of H1, H3 and H4 receptor antagonists for
    treatment of allergic and non-allergic pulmonary
     inflammation, congestion and allergic rhinitis
    The invention includes methods for treating allergic conditions
AB
     involving the airway by administering histamine receptor antagonists.
    histamine receptor antagonist allergic pulmonary inflammation
st
    rhinitis
TT
    Histamine receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (H1; combination of H1, H3 and H4
        receptor antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
IT
    Histamine receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (H3; combination of H1, H3 and H4
        receptor antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
IT
    Histamine receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (H4; combination of H1, H3 and H4 receptor
        antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
ΙT
    Allergy
    Inflammation
    Nose, disease
        (allergic rhinitis; combination of H1, H3
        and H4 receptor antagonists for treatment of allergic and
        non-allergic pulmonary inflammation, congestion and
        allergic rhinitis)
ΙT
    Inflammation
        (allergic, pulmonary inflammation; combination of H1
         H3 and H4 receptor antagonists for treatment of
        allergic and non-allergic pulmonary inflammation,
        congestion and allergic rhinitis)
IT
    Drug delivery systems
        (capsules; combination of H1, H3 and H4 receptor
        antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
IT
    Anti-inflammatory agents
    Drug screening
    Human
    Inflammation
    Respiratory system
        (combination of H1, H3 and H4 receptor antagonists
        for treatment of allergic and non-allergic
       pulmonary inflammation, congestion and allergic rhinitis)
    Allergy
IT
        (inflammation, pulmonary inflammation; combination of H1,
       H3 and H4 receptor antagonists for treatment of
        allergic and non-allergic pulmonary inflammation,
        congestion and allergic rhinitis)
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Drug delivery systems
IT
        (parenterals; combination of H1, H3 and H4 receptor
        antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
    Drug interactions
IT
        (pharmacodynamic; combination of H1, H3 and H4
        receptor antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
ΙT
     Inflammation
     Lung, disease
        (pneumonitis, allergic and non-allergic;
        combination of H1, H3 and H4 receptor antagonists
        for treatment of allergic and non-allergic
        pulmonary inflammation, congestion and allergic rhinitis)
IT
    Drug delivery systems
        (tablets; combination of H1, H3 and H4 receptor
        antagonists for treatment of allergic and non-
        allergic pulmonary inflammation, congestion and
        allergic rhinitis)
     51-45-6, Histamine, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (combination of H1, H3 and H4 receptor antagonists
        for treatment of allergic and non-allergic
        pulmonary inflammation, congestion and allergic rhinitis)
                          60-87-7, Promethazine 84-96-8, Trimeprazine
                                                    68-88-2, Hydroxyzine
IT
     59-33-6, Pyrilamine
                                                             91-81-6,
     82-92-8, Cyclizine
                                                   86-22-6
                      113-92-8, Chloropheniramine
                                                     129-03-3, Cyproheptadine
     Tripelennamine
                             486-16-8, Carbinoxamine
                                                         562-10-7, Doxylamine
     486-12-4, Triprolidine
     569-65-3, Meclizine
                           3964-81-6, Azatadine
                                                   5636-83-9, Dimethindene
                                                      24219-97-4, Mianserin
     5786-21-0, Clozapine
                            15686-51-8, Clemastine
                                             34580-13-7, Ketotifen
                                                                      34970-69-9,
                  29216-28-2, Mequitazine
     24934-49-4
                  34973-91-6, Impentamine
                                             39577-19-0, Picumast
                                                                     50679-08-8,
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                   55273-05-7, Impromidine 58581-89-8, temizole 75970-99-9, Norastemizole
     Terfenadine
                                              58581-89-8, Azelastine
     68844-77-9, Astemizole
                                                          79313-75-0,
                                                79794-75-5, Loratadine
     Sopromidine
                   79516-68-0, Levocabastine
                              83184-43-4, Mifentidine 83799-24-0,
     80012-43-7, Epinastine
                                              86181-42-2, Temelastine
                    83881-51-0, Cetirizine
     Fexofenadine
                                             90729-43-4, Ebastine
                                                                    99616-14-5,
     87848-99-5, Acrivastine
                               90729-42-3
                     100643-71-8, Desloratadine
                                                   106243-16-7,
     S-Sopromidine
                                                110588-56-2, Noberastine
     Thioperamide
                    108612-45-9, Mizolastine
                   150756-35-7, Efletirizine
                                                153259-65-5, SB207499
     145231-45-4
                                              203184-70-7 203184-71-8
     184025-18-1, Ciproxifan
                               203180-53-4
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                                                              224168-46-1
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                                                224168-31-4
                                                433976-18-2
                                                              459783-23-4
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     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (combination of H1, H3 and H4 receptor antagonists
        for treatment of allergic and non-allergic
        pulmonary inflammation, congestion and allergic rhinitis)
     ANSWER 5 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
     2004:2876 CAPLUS
AN
DN
     140:59522
     Preparation of indole derivatives as histamine H3 antagonists
TI
     Aslanian, Robert G.; Berlin, Michael Y.; Mangiaracina, Pietro; McCormick,
IN
     Kevin D.; Mutahi, Mwangi W.; Rosenblum, Stuart B.
PA
     Schering Corporation, USA
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SO

PCT Int. Appl., 62 pp.

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DT
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LΑ
     English
FAN.CNT 1
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     PATENT NO.
     WO 2004000831
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             MG, MK, MN, MX, MZ, NI, NO, NZ, PG, PH, PL, PT, RO, RU, SC, SE,
             SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                                 20050831
                                             CN 2003-814717
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                                             JP 2004-516072
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                           T2
                                 20051020
                                                                      20041217
                                             ZA 2004-10213
                          Α
                                 20051020
     ZA 2004010213
PRAI US 2002-390987P
                           Ρ
                                 20020624
                           W
     WO 2003-US19619
                                 20030620
     MARPAT 140:59522
os
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     Title compds. I [wherein R1 = (un)substituted indolyl or an aza derivative
     thereof; R2 = (un)substituted (hetero)aryl, quinolyl, heterocycloalkyl;
     R12, R13 = alkyl, hydroxyl, alkoxy, etc., or R13 = 0; m = independently
     0-3; n = 1-3; p = 1-3; q = 1-5; X = a bond or alkylene; Y = CO, CS, COCH2,
     etc.; Z = a bond, alkylene, alkenylene, CO, etc.; M1 = CH or N; M2 = CR3
     or N; and salts or solvates thereof] were prepared as histamine H3
     antagonists in treatment of H3 receptor related diseases. For
     example, reaction of II with 3-(4-piperidinyl)-2-(2-pyridinyl)indole,
     followed by deprotection and substitution with 2-chloromethylpyridine gave
     III, which showed 1.50 nM binding constant with histamine H3.
     Thus, I and their pharmaceutical compds., as well as in combination with
     H1 receptor antagonists, are useful as histamine H3
     antagonists for the treatment of inflammatory diseases, allergic
     conditions and central nervous system disorders (no data).
IT
     Antihistamines
        (H1, combination therapy agent; preparation of indole derivs. as
        histamine H3 antagonists)
     Respiratory system, disease
IT
        (hyperresponsiveness, allergy-induced; preparation of indole
        derivs. as histamine H3 antagonists)
IT
       Allergy inhibitors
     Alzheimer's disease
     Anti-Alzheimer's agents
     Antihypotensives
     Antimigraine agents
     Antiobesity agents
     Antipsychotics
     Cardiovascular agents
     Cardiovascular system, disease
     Central nervous system, disease
     Decongestants
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CODEN: PIXXD2

Digestive tract, disease Drug delivery systems Gastrointestinal agents Hyperkinesia Hypokinesia Hypotension Nervous system agents Obesity Schizophrenia Sleep disorders (preparation of indole derivs. as histamine H3 antagonists) 58-73-1, Diphenhydramine 59-33-6, Pyrilamine maleate 60-87-7, IT 68-88-2, Hydroxyzine 82-92-8, Cyclizine 84-96-8, Promethazine 86-22-6, Brompheniramine 91-81-6, Tripelennamine Trimeprazine 486-12-4, Triprolidine 129-03-3, Cyproheptadine 113-92-8 486-16-8, 569-65-3, Meclizine 3964-81-6, Azatadine 562-10-7 Carbinoxamine 15686-51-8, Clemastine 24219-97-4, Mianserin 5636-83-9, Dimethindene 29216-28-2, Mequitazine 34580-13-7, Ketotifen 39577-19-0, Picumast 50679-08-8, Terfenadine 58581-89-8, Azelastine 68844-77-9, Astemizole 75970-99-9, Norastemizole 79516-68-0, Levocabastine 79794-75-5, 83799-24-0, Fexofenadine 80012-43-7, Epinastine Loratadine 83881-51-0, Cetirizine 86181-42-2, Temelastine 87848-99-5, Acrivastine 90729-43-4, Ebastine 100643-71-8, 90729-42-3, Carebastine Descarboethoxyloratadine 108612-45-9, Mizolastine 110588-56-2, 150756-35-7, Efletirizine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination therapy agent; preparation of indole derivs. as histamine H3 antagonists) ANSWER 6 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN  $L_3$ AN2003:991348 CAPLUS 140:27826 DN Preparation of 1-(4-piperidinyl)benzimidazolones as histamine H3 ΤI antagonists Ting, Pauline C.; Aslanian, Robert G.; Berlin, Michael Y.; Boyce, IN Christopher W.; Cao, Jianhua; Mangiaracina, Pietro; Mc, Cormick Kevin D.; Mutahi, Mwangi W.; Rosenblum, Stuart B.; Shih, Neng-yang; Solomon, Daniel M.; Tom, Wing C.; Zeng, Qingbei Schering Corporation, USA PA PCT Int. Appl., 91 pp. SO CODEN: PIXXD2 DTPatent LA English FAN.CNT 2 APPLICATION NO. PATENT NO. KIND DATE \_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ ------WO 2003-US11696 PT WO 2003103669 **A1** 20031218 20030416 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20031218 CA 2003-2482551 20030416 CA 2482551 AΑ AU 2003-223631 AU 2003223631 Α1 20031222 20030416 US 2004048843 20040311 US 2003-414943 A1 20030416 US 2004097483 US 2003-417391 A1 20040520 20030416 US 7105505 B2 20060912 EP 1494671 20050112 EP 2003-719770 20030416 Α1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

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PRAI US 2002-373467P
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                          Ρ
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     JP 2004-510788
                          Α3
                                 20030416
     WO 2003-US11696
                          W
                                 20030416
os
     MARPAT 140:27826
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 6
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     Disclosed are histamine H3 antagonists I [a, b = 0-3; n = 1-3; p
AB
     = 1-3 (with the proviso that when M2 = N, then p is not 1); r = 1-3 (with
     the proviso that when r = 2 or 3, then M2 = CR3 and p = 2 or 3); A = a
     bond, alkylene; M1 = CR3, N; M2 = CR3, N; Y = CO, CS, SO, SO2, etc.; Z = a
     bond, alkylene, alkenylene, CO, CH(CN), etc.; R1 = (un)substituted
     benzimidazolone, quinazolone, etc.; R2 = (un) substituted aryl or
     heteroaryl; R3 = H, halo, alkyl, OH, alkoxy; R12, R13 = alkyl, OH, alkoxy, etc.]. Synthesis of representative compds. I is described. Thus,
     amidation of the amine II with the acid III (prepns. given) afforded 80%
     the compound IV. The compds. I showed a Ki within the range of about 0.1 to
     about 1000 nM in H3-receptor binding assay. Also disclosed are
     pharmaceutical compns. comprising the compds. I. Also disclosed are
     methods of treating various diseases or conditions, such as, for example,
     allergy, allergy-induced airway responses, and
     congestion (e.g., nasal congestion) using the compds. of I. Also
     disclosed are methods of treating various diseases or conditions, such as,
     for example, allergy, allergy-induced airway
     responses, and congestion (e.g., nasal congestion) using the compds. I in
     combination with a H1 receptor antagonist.
IT
     Allergy inhibitors
     Anti-Alzheimer's agents
     Antihistamines
     Antihypotensives
     Antimigraine agents
     Antiobesity agents
     Antipsychotics
     Cardiovascular agents
     Nervous system agents
        (preparation of 1-(4-piperidinyl)benzimidazolones as histamine H3
        antagonists)
IT
     Allergy
     Alzheimer's disease
     Cardiovascular system, disease
     Central nervous system, disease
     Digestive tract, disease
     Hypotension
     Obesity
     Schizophrenia
     Sleep disorders
        (treatment of; preparation of 1-(4-piperidinyl)benzimidazolones as histamine
        H3 antagonists)
ΙT
     58-73-1, Diphenhydramine
                                 59-33-6, Pyrilamine maleate
                                                                60-87-7,
                    68-88-2, Hydroxyzine 82
86-22-6, Brompheniramine
     Promethazine
                                            82-92-8, Cyclizine
                                                                  84-96-8,
                                                91-81-6, Tripelennamine
     Trimeprazine
                                           486-12-4, Triprolidine
                                                                       486-16-8,
     113-92-8
                129-03-3, Cyproheptadine
     Carbinoxamine
                     562-10-7
                                 569-65-3, Meclizine
                                                        3964-81-6, Azatadine
     5636-83-9, Dimethindene
                                15686-51-8, Clemastine
                                                         24219-97-4, Mianserin
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     29216-28-2, Mequitazine
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     50679-08-8, Terfenadine
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     75970-99-9, Norastemizole
                                  79516-68-0, Levocabastine
                                                               79794-75-5,
                  80012-43-7, Epinastine
                                           83799-24-0, Fexofenadine
                               86181-42-2, Temelastine
     83881-51-0, Cetirizine
                                                          87848-99-5, Acrivastine
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150756-35-7, Efletirizine Noberastine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (co-administration; preparation of 1-(4-piperidinyl)benzimidazolones as histamine H3 antagonists for use in combination with an H1 receptor antagonists) ANSWER 7 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN L3 2003:855801 CAPLUS ANDN 139:350734 Preparation of 1-(4-piperidinyl)benzimidazoles as histamine H3 antagonists ΤI Zeng, Qingbei; Aslanian, Robert G.; Berlin, Michael Y.; Boyce, Christopher IN W.; Cao, Jianhua; Kozlowski, Joseph A.; Mangiaracina, Pietro; McCormick, Kevin D.; Mutahi, Mwangi W.; Rosenblum, Stuart B.; Shih, Neng-Yang; Solomon, Daniel M.; Tom, Wing C. Schering Corporation, USA PΑ PCT Int. Appl., 132 pp. SO CODEN: PIXXD2 DT Patent LA English FAN.CNT 2 KIND PATENT NO. DATE APPLICATION NO. DATE \_\_\_\_\_\_ \_\_\_\_\_\_ -------**--**A1 20031030 WO 2003-US11672 WO 2003088967 20030416 PΙ W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NI, NO, NZ, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VC, VN, YU, ZA, ZM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20031030 CA 2003-2481940 20030416 CA 2481940 AAAU 2003-223627 AU 2003223627 A1 20031103 20030416 US 2003-417391 US 2004097483 **A1** 20040520 20030416 US 7105505 B2 20060912 20030416 EP 2003-719766 20050126 EP 1499316 **A1** AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK 20030416 BR 2003009348 Α 20050301 BR 2003-9348 A T2

2004007984 A

NO 2004005002
US 2002-3737217
US 2007 CN 2003-813779 20030416 CN 1658874 Α 20050824 JP 2003-585719 20030416 20050929 ZA 2004-7984 20041004 20051018 PRAI US 2004005002 A

PRAI US 2002-373731P P
 US 2002-373467P P
 WO 2003-US11672 W

OS MARPAT 120 256 NO 2004-5002 20041117 20050118 20020418 20020418 20030416 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 5 ALL CITATIONS AVAILABLE IN THE RE FORMAT The title compds. [I; R1 = (un) substituted benzimidazolyl or a derivative AB thereof; R2 = (un) substituted aryl or heteroaryl; M1, M2 = CR3, N; X = a bond, alkylene; Y = CO, CS, SO2, etc.; Z = a bond, alkylene, CO, etc.; R3 = H, halo, alkyl, etc.; R12 = alkyl, OH, alkoxy, etc.; R13 = alkyl, alkoxy, OH, etc.; a, b = 0-2; n, p = 1-3; r = 0-3; with the provisos which are histamine H3 antagonists, were prepared E.g., a multi-step synthesis of II which showed Ki of 1 nM in rHu H3 binding assay, was given. Also disclosed are pharmaceutical compns. comprising the compds. of formula I and methods of treating various diseases or conditions, such as allergy, allergy -induced airway responses, and congestion (e.g., nasal congestion) using the compds. I. Also disclosed are methods of treating said diseases or

90729-42-3, Carebastine 90729-43-4, Ebastine

Descarboethoxyloratadine 108612-45-9, Mizolastine 110588-56-2,

100643-71-8,

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conditions using the compds. of formula I in combination with an
     H1 receptor antagonist.
     piperidinylbenzimidazole prepn histamine H3 antagonist allergy
ST
     inhibitor; benzimidazole piperidinyl prepn antihistamine H3
ΙT
     Allergy inhibitors
     Anti-Alzheimer's agents
    Antihistamines
     Antihypotensives
     Antimigraine agents
     Antiobesity agents
     Antipsychotics
     Cardiovascular agents
     Human
     Nervous system agents
     Nervous system depressants
        (preparation of 1-(4-piperidinyl)benzimidazoles as histamine H3 antagonists)
IT
     Respiratory system
        (treatment of allergy-induced airway responses; preparation of
        1-(4-piperidinyl)benzimidazoles as histamine H3 antagonists)
IT
     Allergy
     Alzheimer's disease
     Cardiovascular system, disease
     Central nervous system, disease
     Digestive tract, disease
     Hypotension
     Obesity
     Schizophrenia
     Sleep disorders
        (treatment of; preparation of 1-(4-piperidinyl)benzimidazoles as histamine
        H3 antagonists)
IT
     58-73-1, Diphenhydramine
                                 59-33-6, Pyrilamine maleate
                    68-88-2, Hydroxyzine 82-92-8, Cyclizine 86-22-6, Brompheniramine 91-81-6, Tripel
     Promethazine
                                                                  84-96-8,
                                                91-81-6, Tripelennamine
     Trimeprazine
     113-92-8, Chlorpheniramine maleate 129-03-3, Cyproheptadine
                                                                       486-12-4,
                    486-16-8, Carbinoxamine
                                               562-10-7
                                                           569-65-3, Meclizine
     Triprolidine
     3964-81-6, Azatadine
                            5636-83-9, Dimethindene
                                                      15686-51-8, Clemastine
                            29216-28-2, Mequitazine 50679-08-8, Terfenadine
     24219-97-4, Mianserin
                                                         34580-13-7, Ketotifen
     39577-19-0, Picumast
                                                        58581-89-8, Azelastine
     68844-77-9, Astemizole
                               75970-99-9, Norastemizole
                                                            79516-68-0,
                     79794-75-5, Loratadine 80012-43-7, Epinastine
     Levocabastine
     83799-24-0, Fexofenadine
                                 83881-51-0, Cetirizine
                                                           86181-42-2,
                   87848-99-5, Acrivastine
                                             90729-42-3, Carebastine
     Temelastine
     90729-43-4, Ebastine
                            100643-71-8, Descarboethoxyloratadine
     108612-45-9, Mizolastine
                                 110588-56-2, Noberastine
                                                            150756-35-7,
     Efletirizine
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (H1 receptor antagonist; preparation of 1-(4-
        piperidinyl)benzimidazoles as histamine H3 antagonists for
        use in combination with an H1 receptor antagonist)
     ANSWER 8 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
AN
     2002:716267 CAPLUS
DN
     137:247716
     Preparation and use of substituted piperazine/piperidine derivatives as H
     receptor antagonists
     Rosenblum, Stuart B.; Zeng, Qingbei; Mutahi, Mwangi Wa; Aslanian, Robert
     G.; Ting, Pauline C.; Shih, Neng-Yang; Solomon, Daniel M.; Cao, Jianhua;
     Vaccaro, Henry A.; McCormick, Kevin D.; Baldwin, John J.; Li, Ge
     Schering Corporation, USA; Pharmacopeia, Inc.
PΑ
     PCT Int. Appl., 112 pp.
     CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
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DATE
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                                          APPLICATION NO.
    PATENT NO.
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                        A2
                               20020919
                                           WO 2002-US7106
    WO 2002072570
                                                                  20020311
PΙ
                        A3 20030306
    WO 2002072570
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU,
            ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD,
            MG, MK, MN, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SE, SG, SI, SK,
            SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VN, YU, ZA, ZM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                               20020919 CA 2002-2440559
    CA 2440559
                         AA
                                                                20020311
                                           US 2002-95134
                               20030612
    US 2003109564
                         Α1
                                                                  20020311
    US 6849621
                         B2
                               20050201
                               20040102
                                          EP 2002-709808
    EP 1373251
                        A2
                                                                  20020311
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                               20040512
                                           CN 2002-806561
                                                                  20020311
    CN 1496362
                        Α
                                           JP 2002-571486
    JP 2004520435
                         T2
                               20040708
                                                                  20020311
                                           US 2004-974329
    US 2005113383
                               20050526
                        A1
                                                                  20041027
                        P
PRAI US 2001-275417P
                               20010313
                        A3
    US 2002-95134
                               20020311
                         W
                               20020311
    WO 2002-US7106
os
    MARPAT 137:247716
    Title compds. I [R = (hetero)aryl, heterocycloalkyl, alkyl, carboxamido,
AB
    etc.; X = alkyl, S(0)2; Y = bond, CO, CS, alkyl, amido, etc.; M = C, N; Z
    = alkyl, SO2, CO, carboxamido; R = 5-6 membered heteroaryl, alkyl, aryl,
    etc.; R = alkyl, OH, alkoxy, F, etc.; n, p, q = 1-3; with some provisions]
    were prepared For instance, 2,5-dimethylpiperazine was alkylated with
    2-bromobenzaldehyde (CH2Cl2, NaHB(OAc)3) and subsequently acylated with
    N-Boc-isonipecotic acid (CH2Cl2, PyBOP, i-Pr2NEt). The resulting
    intermediate was deprotected and reductively alkylated with
    pyridine-4-carboxaldehyde to afford. Selected example compds. had Ki
    within 0.2 and 600 nM for the H3 receptor. : I, alone and in
    combination with a H1 receptor antagonist, are used for the
    treatment of various diseases or conditions, such as, allergy,
    allergy-induced airway responses and congestion (e.g., nasal
    congestion).
ST
    piperazine piperidine h1 h3 receptor antagonist prepn
IT
    Allergy
      Allergy inhibitors
    Alzheimer's disease
    Anti-Alzheimer's agents
    Antimigraine agents
    Antiobesity agents
    Cardiovascular agents
    Cardiovascular system, disease
    Digestive tract
    Human
    Hypotension
    Nervous system agents
    Obesity
    Schizophrenia
    Sleep disorders
        (preparation and use of substituted piperazine/piperidine derivs. as H
       receptor antagonists)
                                         60-87-7, Promethazine
TΤ
    58-73-1, Diphenhydramine
                               59-33-6
    Hydroxyzine 82-92-8, Cyclizine 84-96-8, Trimeprazine 86-22-6,
    Brompheniramine 91-81-6, Tripelennamine 113-92-8, Chlorpheniramine
                              486-12-4, Triprolidine 486-16-8,
    129-03-3, Cyproheptadine
                             569-65-3, Meclizine 3964-81-6, Azatadine
    Carbinoxamine
                   562-10-7
    5636-83-9, Dimethindene 15686-51-8, Clemastine 24219-97-4, Mianserin
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34580-13-7, Ketotifen

39577-19-0, Picumast

29216-28-2, Mequitazine

75970-99-9, Norastemizole 79516-68-0, Levocabastine 79794-75-5, 80012-43-7, Epinastine 83799-24-0, Fexofenadine Loratadine 86181-42-2, Temelastine 83881-51-0, Cetirizine 87848-99-5, Acrivastine 90729-43-4, Ebastine 100643-71-8, 90729-42-3, Carebastine 108612-45-9, Mizolastine Descarboethoxyloratadine 110588-56-2, 150756-35-7, Efletirizine Noberastine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination pharmaceutical; preparation and use of substituted piperazine/piperidine derivs. as H receptor antagonists) ANSWER 9 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN 2002:314934 CAPLUS 136:340592 Preparation of 4-[4-(piperidin-1-ylcarbonyl)piperidin-1-ylmethyl]pyridin-2ylamines as antagonists of histamine H3 receptors Aslanian, Robert G.; Shih, Neng-Yang; Ting, Pauline C.; Berlin, Michael Y.; Rosenblum, Stuart B.; McCormick, Kevin D.; Tom, Wing C.; Boyce, Christopher W.; Mangiaracina, Pietro; Mutahi, Mwangi Wa; Piwinski, John J. Schering Corporation, USA PCT Int. Appl., 144 pp. CODEN: PIXXD2 Patent English FAN.CNT 1 KIND DATE APPLICATION NO. DATE PATENT NO. ---------\_\_\_\_\_ -----\_\_\_\_\_ A2 20020425 WO 2001-US32151 20011015 WO 2002032893 20020822 WO 2002032893 Α3 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UZ, VN, YU, ZA

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2424664 AA 20020425 CA 2001-2424664 20011015 20020429 AU 2002-15355 AU 2002015355 Α5 20011015 US 2001-978267 20011015 US 2003045519 Α1 20030306 US 6720328 B2 20040413 BR 2001-14754 20011015 BR 2001014754 Α 20030701 EP 1326858 **A2** 20030716 EP 2001-983968 20011015 EP 1326858 В1 20051214 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR 20040121 CN 2001-817512 CN 1469873 Α 20011015 HU 200303835 A2 20040301 HU 2003-3835 20011015 JP 2004511553 T2 20040415 JP 2002-536275 20011015 NZ 524857 Α 20041224 NZ 2001-524857 20011015 20050907 EP 2005-9405 EP 1571145 Α1 20011015 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR AT 312833 Ε 20051215 AT 2001-983968 20011015 Т3 ES 2250500 20060416 ES 2001-1983968 20011015 CN 1803795 Α 20060719 CN 2005-10131094 20011015 ZA 2003002521 Α 20040630 ZA 2003-2521 20030331 NO 2003001744 Α 20030614 NO 2003-1744 20030415 HK 1052935 **A1** 20060519 HK 2003-105161 20030717 US 2004097513 A1 20040520 US 2003-699189 20031031 PRAI US 2000-240901P P 20001017 CN 2001-817512 A3 20011015 20011015 EP 2001-983968 **A3** 

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US 2001-978267

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20011015

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WO 2001-US32151
                           W
                                 20011015
OS
     MARPAT 136:340592
     The title compds. [I; R1 = (un) substituted aryl, heteroaryl, alkyl, etc.;
AΒ
     X = CO, C(NOR3), C(NNR4R5), etc.; M1 = C; M2 = C, N; M3, M4 = C, N; Y =
     CH2, CO, C(NOH), etc.; Z = alkyl; R2 = (un)substituted 5-6 membered
     heteroaryl; R3 = H, alkyl, aryl, etc.; R4 = H, alkyl, aryl, etc.; R5 = H,
     alkyl, COR4, etc.; R12, R13 = alkyl, OH, alkoxy, F; a, b = 0-2; n, p = alkyl
     1-3, with the proviso that when M3 and M4 are both N atoms, then p = 2 or
     3], useful in treating various diseases or conditions, such as, for
     example, allergy, allergy-induced airway responses,
     and congestion (e.g., nasal congestion), were prepared E.g., a multi-step
     synthesis of II which showed Ki of 0.83 nM in H3 receptor
     binging assay, was given. Also disclosed are methods of treating various
     diseases or conditions, such as, for example, allergy,
     allergy-induced airway responses, and congestion (e.g., nasal
     congestion) using the compds. I in combination with a H1
     receptor antagonist.
     antihistamine H3 piperidinylcarbonylpiperidinylmethylpyridinylamine prepn;
ST
     histamine H3 antagonist piperidinylcarbonylpiperidinylmethylpyridinylamine
     prepn; allergy inhibitor piperidinylcarbonylpiperidinylmethylpyr
     idinylamine prepn; nasal decongestant piperidinylcarbonylpiperidinylmethyl
     pyridinylamine prepn
IT
     Allergy inhibitors
     Anti-Alzheimer's agents
     Antiobesity agents
     Cardiovascular agents
     Nervous system stimulants
        (preparation of 4-[4-(piperidin-1-ylcarbonyl)piperidin-1-ylmethyl]pyridin-2-
        ylamines as antagonists of histamine H3 receptors)
     58-73-1, Diphenhydramine 60-87-7, Promethazine
IT
                                                         68-88-2, Hydroxyzine
     82-92-8, Cyclizine 84-96-8, Trimeprazine 86-22-6, Brompheniramine 91-81-6, Tripelennamine 91-84-9, Pyrilamine 129-03-3, Cyproheptad
                               91-84-9, Pyrilamine 129-03-3, Cyproheptadine
     132-22-9, Chlorpheniramine 469-21-6, Doxylamine 486-12-4, Triprolidine
     486-16-8, Carbinoxamine 569-65-3, Meclizine 3964-81-6, Azatadine
                                15686-51-8, Clemastine 34580-13-7, Ketotifen
     5636-83-9, Dimethindene
                                                         24219-97-4, Mianserin
     29216-28-2, Mequitazine 50679-08-8, Terfenadine
                                                         39577-19-0, Picumast
                               68844-77-9, Astemizole
                                                          75970-99-9,
                      79516-68-0, Levocabastine 79794-75-5, Loratadine
     Norastemizole
                               83799-24-0, Fexofenadine
     80012-43-7, Epinastine
                                                           83881-51-0, Cetirizine
                   emelastine 87848-99-5, Acrivastine 90729-42-3, 90729-43-4, Ebastine 100643-71-8, Descarboethoxyloratadine
     86181-42-2, Temelastine
     Carebastine
     108612-45-9, Mizolastine 110588-56-2, Noberastine 150756-35-7,
     Efletirizine
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (H1 receptor antagonist; preparation of 4-[4-(piperidin-1-
        ylcarbonyl)piperidin-1-ylmethyl]pyridin-2-ylamines as antagonists of
        histamine H3 receptors)
     ANSWER 10 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
     2001:360990 CAPLUS
AN
DN
     136:48247
ΤI
     Histamine H3 antagonists
ΑU
     McLeod, Robbie L.; Egan, Robert W.; Cuss, Francis M.; Bolser, Donald C.;
     Hey, John A.
     Allergy, Schering-Plough Research Institute, Kenilworth, NJ, USA
CS
     Progress in Respiratory Research (2001), 31 (New Drugs for Asthma, Allergy
SO
     and COPD), 133-136
     CODEN: PRRRAE; ISSN: 1422-2140
PΒ
     S. Karger AG
DT
     Journal
LΑ
     English
RE.CNT 19
              THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB
     Treatment of allergic rhinitis often involves the use of
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H1 antihistamines which block histamine, a primary mediator in allergic responses. Antihistamines alone do not provide significant benefit against the congestion associated with allergic rhinitis and are commonly given in combination with  $\alpha$ -adrenergic decongestants. Whereas these decongestants are effective in reducing the congestion associated with allergic nasal disease, they may produce undesirable side effects, such as hypertension, agitation, and insomnia. Presently, the authors discuss preclin. findings showing that combination histamine H1 and H3 receptor blockade produces decongestant activity without the hypertensive liability characteristic of  $\alpha$ -adrenoceptor agonists. antihistamine H3 decongestant allergic rhinitis Histamine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (H1; histamine H1/H3 antagonists in allergic rhinitis) IT Antihistamines (H3; histamine H1/H3 antagonists in allergic rhinitis) Histamine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (H3; histamine H1/H3 antagonists in allergic rhinitis) Allergy Inflammation Nose, disease (allergic rhinitis; histamine H1/H3 antagonists in allergic rhinitis) Blood pressure (histamine H1/H3 antagonists in allergic rhinitis) Decongestants (nasal; histamine H1/H3 antagonists in allergic rhinitis) Circulation (regional, nose; histamine H1/H3 antagonists in allergic rhinitis) 106243-16-7, Thioperamide 145231-45-4, Clobenpropit RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combined with chlorpheniramine; histamine H1/H3 antagonists in allergic rhinitis) 79794-75-5, Loratadine RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combined with thioperamide; histamine H1/H3 antagonists in allergic rhinitis) ANSWER 11 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN 2001:167001 CAPLUS 134:247322 Cloning and pharmacological characterization of a fourth histamine receptor (H4) expressed in bone marrow Liu, Changlu; Ma, Xiao-Jun; Jiang, Xiaoxia; Wilson, Sandy J.; Hofstra, Claudia L.; Blevitt, Jonathan; Pyati, Jayashree; Li, Xiaobing; Chai, Wenying; Carruthers, Nicholas; Lovenberg, Timothy W. The R. W. Johnson Pharmaceutical Research Institute, San Diego, CA, USA Molecular Pharmacology (2001), 59(3), 420-426 CODEN: MOPMA3; ISSN: 0026-895X American Society for Pharmacology and Experimental Therapeutics Journal English THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 26 ALL CITATIONS AVAILABLE IN THE RE FORMAT

STTΤ

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Histamine is a multifunctional hormone that regulates smooth muscle AB contraction in the airways, acid secretion in the gut, and neurotransmitter release in the central nervous system through three well characterized receptor subtypes, H1, H2, H3, resp. As part of a directed effort to discover novel G-protein-coupled receptors through homol. searching of genomic databases, the authors identified a partial clone (GPCR105) that had significant homol. to the recently identified histamine H3 receptor cDNA. Expression of the full-length human GPCR105 in cells confers the ability to bind [3H] histamine with high affinity (KD = 5 nM). GPCR105 is pharmacol. similar to the histamine H3 receptor in that it binds many of the known H3 agonists and antagonists, albeit with a different rank order of affinity/potency. GPCR105 does not bind (i.e., KD > 10 μM) all tested H1 and H2 receptor antagonists such as diphenhydramine, loratadine, ranitidine, and cimetidine, but has modest affinity for the H2 receptor agonist, dimaprit (377 nM). Whereas the H3 receptor is expressed almost exclusively in nervous tissues, GPCR105 is expressed primarily in bone marrow and eosinophils. Together, these data demonstrate that GPCR105 is a novel histamine receptor structurally and pharmacol. related to the H3 receptor. However, its unique expression profile and physiol. role suggest that GPCR105 is a fourth histamine receptor subtype (H4) and may be a therapeutic target for the regulation of immune function, particularly with respect to allergy and asthma.

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L3 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 2000:567449 CAPLUS

DN 133:168392

TI Composition and method for treating allergic diseases

IN Aslanian, Robert G.; Piwinski, John J.

PA Schering Corporation, USA

SO U.S., 9 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6103735	A	20000815	US 1999-412621	19991006
PRAI US 1999-412621		19991006		

OS MARPAT 133:168392

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Composition and method for treating allergic diseases

AB The present invention is directed towards a pharmaceutical composition useful for the treatment of allergic rhinitis, asthma and related disorders. In one embodiment, the composition comprises, in combination, a therapeutically effective amount of at least one neurokinin antagonist, a therapeutically effective amount of at least one H3 antagonist and a therapeutically effective amount of at least one H1 antagonist.

ST neurokinin histamine antagonist combination allergy treatment

IT Antihistamines

(H1; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases)

IT Antihistamines

(H3; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases)

IT Nose

(allergic rhinitis; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases)

IT Antitussives

· Asthma

Decongestants

Drug delivery systems

Expectorants (antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) IT Neurokinins RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (antagonists; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) IT (congestion; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) Respiratory tract TT (disease; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) IT Eye (redness; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) IT Breathing (animal) (wheezing; antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) 60-87-7, Promethazine 68-88-2, Hydroxyzine IT 59-33-6, Pyrilamine 82-92-8, Cyclizine 84-96-8, Trimeprazine 86-22-6, Brompheniramine 91-81-6, Tripelennamine 113-92-8, Chlorpheniramine 129-03-3, Cyproheptadine 486-12-4, Triprolidine 486-16-8, Carbinoxamine 562-10-7, Doxylamine 569-65-3, Meclizine 3964-81-6, Azatadine 5636-83-9, Dimethindene 5786-21-0, Clozapine 15686-51-8, Clemastine 24219-97-4, Mianserin 29216-28-2, Mequitazine 34580-13-7, Ketotifen 34970-69-9, Burimamide 34973-91-6, Impentamine 39577-19-0, Picumast 46129-28-6, SKF-91486 50679-08-8, Terfenadine 55273-05-7, Impromidine 68844-77-9, Astemizole 75970-99-9, 58581-89-8, Azelastine 79313-75-0, Sopromidine 79516-68-0, Levocabastine Norastemizole 79794-75-5, Loratadine 80012-43-7, Epinastine 83184-43-4, 83799-24-0, Fexofenadine 83881-51-0, Cetirizine Mifentidine 86181-42-2, Temelastine 87848-99-5, Acrivastine 90729-42-3, 90729-43-4, Ebastine Carebastine 99616-14-5, S-Sopromidine 100643-71-8, Descarboethoxyloratadine 106243-16-7, Thioperamide 110588-56-2, Noberastine 108612-45-9, Mizolastine 145231-45-4, 150756-35-7, Efletirizine 152030-16-5, UCL 1199 Clobenpropit 176860-26-7, GR-175737 213027-19-1, GT-2331 152241-24-2, GT-2016 224585-45-9 263892-22-4 263892-24-6 263892-25-7 263892-26-8 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antagonists of neurokinin receptors and histamine receptors for treating allergic diseases) ANSWER 13 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN L32000:259985 CAPLUS AN 132:284236 DN Composition and method for treating allergic diseases TI Aslanian, Robert G.; Piwinski, John J. IN PA Schering Corporation, USA PCT Int. Appl., 22 pp. so CODEN: PIXXD2 DTPatent English LΑ FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_ \_ \_ \_ WO 2000021512 **A2** 20000420 WO 1999-US21437 19991006 PΙ WO 2000021512 **A**3 20000706 AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ,

DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ,

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PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UZ,
             VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2346227
                          AA
                                20000420
                                            CA 1999-2346227
                                                                    19991006
     AU 9962526
                          A1
                                20000501
                                            AU 1999-62526
                                                                    19991006
                                20010725
                                            EP 1999-949707
     EP 1117405
                          A2
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                            JP 2000-575488
                                                                    19991006
     JP 2002527381
                          T2
                                20020827
PRAI US 1998-169608
                                19981009
                          Α
    WO 1999-US21437
                          W
                                19991006
    MARPAT 132:284236
os
     Composition and method for treating allergic diseases
TI
     The present invention is directed towards a pharmaceutical composition useful
AB
     for the treatment of allergic rhinitis, asthma and related
                In one embodiment, the compns. comprise, in combination, a
     disorders.
     therapeutically effective amount of at least one neurokinin antagonist, a
     therapeutically effective amount of at least one H3 antagonist and
     a therapeutically effective amount of at least one H1 antagonist.
     The invention neurokinin antagonists include 3,5-dichloro-N-[3-(3,4-
     dichlorophenyl) -2-(methoxyimino) -5-(2-oxo[1,4'-bipiperidin]-1'-yl)pentyl]-
     N-methylbenzamide and derivs. thereof.
     piperidinoalkoximinopentylbenzamide analog neurokinin antagonist
ST
     antihistaminic allergy
IT
     Antihistamines
        (H1; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
IT
    Antihistamines
        (H3; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
TT
     Nose
        (allergic rhinitis; pharmaceutical compns. containing neurokinin
        antagonists and antihistaminics for treatment of allergic
        diseases)
IT
     Neurokinins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (antagonists; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
IT
     Nose
        (congestion; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
IT
     Allergy inhibitors
     Asthma
     Cough
     Drug delivery systems
        (pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
IT
     Eye, disease
        (redness; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
IT
     Breathing (animal)
        (wheezing; pharmaceutical compns. containing neurokinin antagonists and
        antihistaminics for treatment of allergic diseases)
                           60-87-7, Promethazine
TT
                                                   68-88-2, Hydroxyzine
     59-33-6, Pyrilamine
                          84-96-8, Trimeprazine
                                                  86-22-6
                                                             91-81-6,
     82-92-8, Cyclizine
                                 129-03-3, Cyproheptadine
                                                             486-12-4,
     Tripelennamine
                      113-92-8
                    486-16-8, Carbinoxamine
                                              562-10-7, Doxylamine
                                                                      569-65-3,
     Triprolidine
                                        5636-83-9, Dimethindene
     Meclizine
                 3964-81-6, Azatadine
                                                                   5786-21-0,
                 15686-51-8, Clemastine
                                                                   29216-28-2,
     Clozapine
                                          24219-97-4, Mianserin
                                           34970-69-9, Burimamide
                   34580-13-7, Ketotifen
                                                                     34973-91-6,
     Mequitazine
                   39577-19-0, Picumast
                                          46129-28-6, SKF-91486
                                                                   50679-08-8,
     Impentamine
                   55273-05-7, Impromidine 58581-89-8, Azelastine
     Terfenadine
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79516-68-0, Levocabastine 79794-75-5, Loratadine
                                                         80012-43-7,
    Epinastine 83184-43-4, Mifentidine 83799-24-0, Fexofenadine
    83881-51-0, Cetirizine 86181-42-2, Temelastine 87848-99-5, Acrivastine
                             90729-43-4, Ebastine
    90729-42-3, Carebastine
                                                    99616-14-5, S-Sopromidine
    100643-71-8, Descarboethoxyloratadine
                                            106243-16-7, Thioperamide
    108612-45-9, Mizolastine
                             110588-56-2, Noberastine
                                                         145231-45-4,
                  150756-35-7, Efletirizine 152030-16-5, UCL 1199
    Clobenpropit
    152241-24-2, GT-2016 176860-26-7, GR-175737
                                                    213027-19-1, GT-2331
                                226915-78-2
    224585-45-9 226915-31-7
                                              226916-77-4
                                                          263892-22-4
                  263892-25-7 263892-26-8 263892-27-9 263892-28-0
    263892-24-6
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (pharmaceutical compns. containing neurokinin antagonists and
       antihistaminics for treatment of allergic diseases)
    ANSWER 14 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
    1999:104511 CAPLUS
    130:163188
    Treatment of upper airway allergic responses with H1-
    and H3-histamine receptor antagonists
    Kreutner, William; Hey, John A.
    Schering Corporation, USA
    U.S., 5 pp.
    CODEN: USXXAM
    Patent
    English
FAN.CNT 1
                       KIND
                               DATE
                                         APPLICATION NO.
    PATENT NO.
                                                                 DATE
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                                        US 1997-909319
    US 5869479
                       · A
                               19990209
                                                                  19970814
PRAI US 1997-909319
                               19970814
RE.CNT 16
             THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    Treatment of upper airway allergic responses with H1-
    and H3-histamine receptor antagonists
    Relief from the symptoms of rhinitis is obtained by treatment with: (a) an
    antihistaminic effective amount of a histamine H1 receptor
     antagonist; together with (b) a sufficient amount of a histamine H3
    receptor antagonist to provide a nasal decongestant effect. The
     components may be administered together in a single dosage form, or sep.
     in the same or different dosage forms to maintain therapeutic systemic
    levels of both components.
    H1 H3 histamine antagonist rhinitis; upper airway
    allergy histamine receptor antagonist
    Antihistamines
    Blood pressure
    Decongestants
    Drug delivery systems
    Drug interactions
        (H1- and H3-histamine receptor antagonists for
       treatment of rhinitis)
    Antihistamines
        (H1; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
    Histamine receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (H3, antagonists; H1- and H3-histamine
       receptor antagonists for treatment of rhinitis)
    Drug delivery systems
        (capsules; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
    Drug delivery systems
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79313-75-0

68844-77-9, Astemizole 75970-99-9, Norastemizole

L3

ΑN

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PA SO

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AΒ

ST

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Drug delivery systems
        (liqs., oral; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
IT
    Drug delivery systems
        (parenterals; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
IT
    Nose
        (rhinitis; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
    Drug delivery systems
IT
        (tablets; H1- and H3-histamine receptor antagonists
       for treatment of rhinitis)
                                                  150036-88-7, Verongamine
IT
    154-41-6, Phenylpropanolamine hydrochloride
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); BIOL (Biological study)
        (H1- and H3-histamine receptor antagonists for
       treatment of rhinitis)
IT
    58-73-1, Diphenhydramine
                               59-33-6 60-87-7, Promethazine
                                                                 68-88-2,
                  82-92-8, Cyclizine 84-96-8, Trimeprazine
                                                               86-22-6,
    Hydroxyzine
    Brompheniramine
                     91-81-6, Tripelennamine 113-92-8, Chlorpheniramine
                                         486-12-4, Triprolidine
              129-03-3, Cyproheptadine
                                                                  486-16-8,
    maleate
                                              562-10-7
    Carbinoxamine
                    523-87-5, Dimenhydrinate
                                                         569-65-3, Meclizine
                           5636-83-9, Dimethindene
                                                    5786-21-0, Clozapine
    3964-81-6, Azatadine
                            24219-97-4, Mianserin 29216-28-2, Mequitazine
    15686-51-8, Clemastine
    34580-13-7, Ketotifen 34970-69-9, Burimamide 34973-91-6, Impentamine
    39577-19-0, Picumast 46129-28-6, SKF-91486 50679-08-8, Terfenadine
    55273-05-7, Impromidine 58581-89-8, Azelastine
                                                      68844-77-9, Astemizole
    75970-99-9, Norastemizole 79313-75-0, Sopromidine
                                                         79516-68-0,
                    79794-75-5, Loratadine
    Levocabastine
                                             80012-43-7, Epinastine
                             83799-24-0, Fexofenadine 83881-51-0,
    83184-43-4, Mifentidine
                86181-42-2, Temelastine 87848-99-5, Acrivastine
    Cetirizine
                              90729-43-4, Ebastine 99616-14-5, S-Sopromidine
    90729-42-3, Carebastine
    100643-71-8, Descarboethoxyloratadine 106243-16-7, Thioperamide
    108612-45-9, Mizolastine 110588-56-2, Noberastine 145231-45-4,
    Clobenpropit
                   148440-81-7
                                 150756-35-7, Efletirizine 152241-24-2,
              176860-26-7, GR 175737
    GT-2016
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (H1- and H3-histamine receptor antagonists for
       treatment of rhinitis)
IT
    152030-16-5
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (UCL 1199; H1- and H3-histamine receptor
       antagonists for treatment of rhinitis)
    ANSWER 15 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
L3
    1998:202807 CAPLUS
AN
DN
    128:229269
    Histamine in the pathogenesis of asthma
TI
ΑU
    Akagi, Masaaki
    Fac. Pharm. Sci., Tokushima Bunri Univ., Tokushima, 770-8514, Japan
CS
so
    Nippon Yakurigaku Zasshi (1998), 111(4), 217-222
    CODEN: NYKZAU; ISSN: 0015-5691
PR
    Nippon Yakuri Gakkai
DТ
    Journal; General Review
LA
    Japanese
    A review with 47 refs. While it is clear that the clin. expression of
AB
    IqE-mediated diseases depends upon the actions of multiple mediators,
    histamine, the earliest recognized mediator of allergy, remains
    a prominent contributor. Histamine released from mast cells binds to
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specific receptors (H1, H2, H3) to produce its clin.

effects. The cardinal features of asthma include smooth muscle spasm, mucosal edema, inflammation, and mucus secretion. It has been demonstrated that 2 of these features, bronchospasm and mucosal edema, can be caused by H1-receptor stimulation, while H2- and possibly H1-activation are probably minor causes of mucus secretion. Histamine interacts directly with the endothelial cells (EC) and induces permeability, a transient expression of P-selectin and the secretion of lipid mediators (e.g. PGI2, PAF and LTB4). Moreover, histamine induces a significant increase of IL-6 and IL-8 secretion by EC. Since IL-8 exerts a chemotactic activity for neutrophils, eosinophils, and basophils, and IL-6 is involved in endothelium permeability, the secretion of cytokines may be involved in the late phase reaction. Some antihistamines (i.e., levocabastine, terfenadine, loratadine, azelastine, and oxatomide) can reduce ICAM-1 expression. The participation of histamine in the allergic inflammation, including asthma, must be re-examined, since the effects of histamine are more widespread.

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L3 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN
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AN 1998:124005 CAPLUS

DN 128:208908

TI Treatment of upper airway allergic responses with a combination of histamine receptor antagonists

IN Kreutner, William; Hey, John A.

PA Schering Corporation, USA

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.			KIND DATE				APF	LICAT	'ION		DATE						
PI	WO 9806394			A1	A1 19980219			WO 1997-US13903						19970813				
		W:	AL,	AM,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY	, CA,	CN,	CZ,	EE,	GE,	HU,	ΙL,
			ıs,	JP,	KG,	KR,	KZ,	LC,	LK,	LR,	LI	LV,	MD,	MG,	MK,	MN,	MX,	NO,
												Г, ТМ,						
		RW:	GH,	ΚE,	LS,	MW,	SD,	, SZ,	ŪĠ,	ZW,	ΑT	BE,	CH,	DΕ,	DK,	ES,	FI,	FR,
			GB,	GR,	ΙE,	IT,	LU,	, MC,	NL,	PT,	SE	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,
								, TD,										
	ZΑ	9707	263			Α		1998	0216		ZA	1997- 1997-	7263			1:	9970	313
	CA	2263	163			AA		1998	0219		CA	1997-	2263	163		1	9970	313
	AU	9739	733			A1		1998	0306		ΑU	1997-	3973	3		1:	9970	313
	ΑU	7220	40			B2		2000	0720									
	ΕP	9203	15			A1		1999	0609		ΕP	1997-	9371	53		1	9970	313
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		R:	-				DK,	, ES,	FR,	GB,	GR	?, IT,	LΙ,	LU,	NL,	SE,	PT,	ΙE,
			LT,	LV,	FI,	RO												
	BR	9711 1233	149			Α		1999	0817		BŖ	1997-	1114	9		1:	9970	313
	CN	1233	179			Α		1999			CN	1997-	1987	13		1:	9970	313
	ıΤΡ	2000	5050	94		Т2		2000			JP	1998-	5098	59		1	9970	813
	JP	3638	289			B2		2005	0413									
	NZ	3638 3340	63			Α		2000	0929		NZ	1997-	3340	63		1:	9970	313
	ΗU	9904	362			A2		2000	1128		HU	1999-	4362			1:	9970	313
	JP	2003095979 221768 314071			A2		2003		JP 2002-222138 TW 1997-86111627									
	TW	2217	68			B1		2004	1011		TW	1997-	8611	1627		1:	9970	813
	ΑT	3140	71			E		2006	0115		AΤ	1997-	9371	53		1	9970	813
	PL	1910	73			B1		2006	0331		PL	1997-	3316	17		1:	9970	813
	KR	2000	0299	75		Α		2000	0525		KR	1999-	7012	26		1	9990:	212
	МО	9900	706			Α		1999	0215		ИО	1999-	706			1	9990	215
PRAI	US	1996	-689	951		Α		1996	0816									
								1997										
		1997						1997										

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Treatment of upper airway allergic responses with a combination

of histamine receptor antagonists Relief from the symptoms of rhinitis is obtained by treatment with: (a) an AB antihistaminic effective amount of a histamine H1 receptor antagonist; together with (b) a sufficient amount of a histamine H3 receptor antagonist to provide a nasal decongestant effect. components may be administered together in a single dosage form, or sep. in the same or different dosage forms to maintain therapeutic systemic The nasal airways resistance following levels of both components. injection of 3 mg/kg loratadine and 10 mg/kg thioperamide in cats was 2.1 as compared with 10.2 for loratadine alone. A tablet contained H1 antagonist effective amount, H3 antagonist effective amount, lactose 100, 10% corn starch past 5, dried corn starch 25, and magnesium stearate 1.25 mg. upper airway allergy histamine receptor antagonist; loratadine thioperamide nasal decongestant tablet Antihistamines IT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (H1; treatment of upper airway allergic responses with combination of histamine receptor antagonists) IT Histamine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (H3, antagonist; treatment of upper airway allergic responses with combination of histamine receptor antagonists) Drug delivery systems IT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (capsules; treatment of upper airway allergic responses with combination of histamine receptor antagonists) Drug delivery systems TΤ RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (ligs., oral; treatment of upper airway allergic responses with combination of histamine receptor antagonists) IT Decongestants RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (nasal; treatment of upper airway allergic responses with combination of histamine receptor antagonists) Drug delivery systems RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (parenterals, solns.; treatment of upper airway allergic responses with combination of histamine receptor antagonists) IT RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (rhinitis; treatment of upper airway allergic responses with combination of histamine receptor antagonists) TΤ Drug delivery systems RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (tablets; treatment of upper airway allergic responses with combination of histamine receptor antagonists) Antihistamines TТ RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses) (treatment of upper airway allergic responses with combination of histamine receptor antagonists) Respiratory tract (upper; treatment of upper airway allergic responses with combination of histamine receptor antagonists) 58-73-1, Diphenhydramine 59-33-6 60-87-7, Promethazine 68-88-2, 82-92-8, Cyclizine 84-96-8, Trimeprazine Hydroxyzine 86-22-6 91-81-6, Tripelennamine 113-92-8 129-03-3, Cyproheptadine 486-12-4, 486-16-8, Carbinoxamine 523-87-5, Dimenhydrinate Triprolidine 3964-81-6, Azatadine 562-10-7 569-65-3, Meclizine 5636-83-9, 14838-15-4, Phenylpropanolamine 5786-21-0, Clozapine Dimethindene 24219-97-4, Mianserin 15686-51-8, Clemastine 29216-28-2, Mequitazine 34580-13-7, Ketotifen 34970-69-9, Burimamide 39577-19-0, Picumast 50679-08-8, Terfenadine 46129-28-6, Skf-91486 55273-05-7, Impromidine 68844-77-9, Astemizole 75970-99-9, 58581-89-8, Azelastine 79313-75-0, Sopromidine 79516-68-0, Levocabastine Norastemizole 80012-43-7, EPinastine 83184-43-4, 79794-75-5, Loratadine 83799-24-0, Fexofenadine 83881-51-0, Cetirizine Mifentidine 86181-42-2, Temelastine 90729-42-3, 87848-99-5, Acrivastine 90729-43-4, Ebastine 99616-14-5, S-Sopromidine Carebastine 100643-71-8, Descarboethoxyloratadine 106243-16-7, Thioperamide 110588-56-2, Noberastine 108612-45-9, Mizolastine 145231-45-4, 150036-88-7, Verongamine 150756-35-7, Efletirizine Clobenpropit 152241-24-2, Gt-2016 152030-16-5, UCL 1199 176860-26-7, GR 175737 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (treatment of upper airway allergic responses with combination of histamine receptor antagonists) ANSWER 17 OF 17 CAPLUS COPYRIGHT 2006 ACS on STN 1995:521009 CAPLUS 122:306242 Pharmacological studies of allergic cough in the guinea pig Bolser, Donald C.; DeGennaro, Frances C.; O'Reilly, Sandra; Hey, John A.; Chapman, Richard W. 2015 Galloping Hill Road, Schering-Plough Research Institute, Kenilworth, NJ, 07033-0539, USA European Journal of Pharmacology (1995), 277(2/3), 159-64 CODEN: EJPHAZ; ISSN: 0014-2999 Elsevier Journal English Pharmacological studies of allergic cough in the guinea pig The pharmacol. mechanisms of allergic cough in the guinea pig were studied. Actively sensitized guinea pigs were exposed to aerosols of antigen to elicit coughing. In sep. expts., naive guinea pigs were exposed to aerosols of capsaicin to elicit coughing. Both allergic and capsaicin-induced coughs were inhibited by loratadine (0.3-10 mg/kg orally) and chlorpheniramine (0.1-3.0 mg/kg orally). Neither cimetidine (10 mg/kg s.c.) nor thioperamide (3-10 mg/kg s.c.) inhibited allergic or capsaicin-induced cough. Codeine (3-30 mg/kg orally), salbutamol (0.003-3.0 mg/kg s.c.) and ipratropium (0.03-1.0 mg/kg s.c.) inhibited both allergic and capsaicin-induced cough. Hexamethonium (10 and 30 mg/kg s.c.) inhibited allergic, but not capsaicin-induced, cough. Allergic and capsaicin-induced coughs were unaffected by phenidone (5.0 and 10.0 mg/kg s.c.). Indomethacin (5.0 and 10.0 mg/kg s.c.) had no effect on allergic cough but slightly inhibited capsaicin-induced cough. It is concluded that allergic and capsaicin-induced coughs are modulated by histamine H1 receptor and cholinergic mechanisms. Histamine H2 or histamine H3 receptor mechanisms, and lipoxygenase and cyclooxygenase products of arachidonic acid metabolism, do

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- not influence allergic and capsaicin-induced cough. Ganglionic mechanisms play a minor role in the production of allergic cough and no role in capsaicin-induced cough.
- ST cough mechanism pharmacol; allergy cough mechanism pharmacol; capsaicin cough mechanism pharmacol
- IT Antitussives

(allergic and capsaicin-induced cough response to)

IT Allergy Cough

(mechanisms and pharmacol. of allergic cough and capsaicin-induced cough)

IT Neurotransmission

(cholinergic, mechanisms of allergic and capsaicin-induced cough involving)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (histaminic H1, mechanisms of allergic and capsaicin-induced cough involving)

IT 53-86-1, Indomethacin 55-97-0, Hexamethonium bromide 76-57-3, Codeine 92-43-3, Phenidone 113-92-8, Chlorpheniramine maleate 18559-94-9, Salbutamol 22254-24-6, Ipratropium bromide 51481-61-9, Cimetidine 79794-75-5, Loratadine 106243-16-7, Thioperamide RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(allergic and capsaicin-induced cough response to)

IT 506-32-1, Arachidonic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study) (mechanisms of allergic and capsaicin-induced cough involving metabolism of)